

What is claimed is:

- 1 1. A method of accessing a group in a clustered computer system, wherein the
2 clustered computer system includes a plurality of nodes, and wherein the group
3 includes a plurality of members resident respectively on the plurality of nodes, the
4 method comprising:
 - 5 (a) receiving an access request on a first node in the plurality of nodes,
6 wherein the access request identifies a cluster-private group name associated
7 with the group; and
 - 8 (b) processing the access request on the first node to initiate a group
9 operation on at least a subset of the plurality of nodes that map to the cluster-
10 private group name.
- 1 2. The method of claim 1, further comprising generating the access request
2 with a user job resident on the first node.
- 1 3. The method of claim 2, further comprising forwarding the access request to
2 a clustering infrastructure resident in the first node via a call from the user job.
- 1 4. The method of claim 1, further comprising:
 - 2 (a) generating the access request with a user job resident on a second
3 node in the plurality of nodes; and
 - 4 (b) processing the access request with a proxy job resident on the
5 second node by communicating the access request to the first node.
- 1 5. The method of claim 4, wherein the proxy job is a member of a cluster
2 control group, the method further comprising:
 - 3 (a) forwarding the access request from the user job to the proxy job;
4 and
 - 5 (b) forwarding the access request from the proxy job to a clustering
6 infrastructure resident in the second node via a call from the proxy job.

1 6. The method of claim 1, further comprising retrieving the cluster-private
2 group name with a user job by accessing a cluster-private data structure.

1 7. The method of claim 6, wherein the cluster-private data structure is resident
2 on the same node as the user job.

1 8. The method of claim 7, wherein the cluster-private data structure is
2 accessible only from the node upon which the cluster-private data structure is resident.

1 9. The method of claim 8, wherein the cluster-private data structure is
2 accessible only by jobs that are resident on the node upon which the cluster-private
3 data structure is resident.

1 10. The method of claim 1, wherein initiating the group operation comprises
2 distributing messages to a plurality of group members resident on the nodes that map
3 to the cluster-private group name.

1 11. The method of claim 10, wherein initiating the group operation further
2 comprises accessing a group address data structure to retrieve a plurality of network
3 addresses associated with the cluster-private group name, wherein distributing
4 messages to the plurality of group members includes sending a message to each of the
5 plurality of network addresses.

1 12. The method of claim 1, wherein initiating the group operation is
2 performed by a clustering infrastructure resident on the first node.

1 13. The method of claim 12, wherein initiating the group operation includes
2 retrieving with the clustering infrastructure a plurality of addresses that are mapped to
3 the cluster-private group name in a data structure that is local to the clustering
4 infrastructure.

- 1 14. The method of claim 1, wherein initiating the group operation includes
- 2 locally resolving on the first node a mapping between the cluster-private group name
- 3 and a plurality of addresses associated with at least the subset of the plurality of
- 4 nodes.

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1 15. An apparatus, comprising:

2 (a) a memory accessible by a first node among a plurality of nodes in a
3 clustered computer system; and

4 (b) a program resident in the memory and executed by the first node,
5 the program configured to access a group that includes a plurality of members
6 resident respectively on the plurality of nodes by receiving an access request
7 that identifies a cluster-private group name associated with the group, and
8 processing the access request to initiate a group operation on at least a subset
9 of the plurality of nodes that map to the cluster-private group name.

1 16. The apparatus of claim 15, further comprising a user job configured to
2 generate the access request.

1 17. The apparatus of claim 16, wherein the program comprises a clustering
2 infrastructure resident on the first node.

1 18. The apparatus of claim 17, further comprising a proxy job configured to
2 forward the access request from the user job to the clustering infrastructure.

1 19. The apparatus of claim 15, further comprising:

2 (a) a cluster-private data structure configured to store the cluster-
3 private group name; and

4 (b) a user job configured to access the cluster-private data structure to
5 retrieve the cluster-private group name and generate the access request
6 therefrom.

1 20. The apparatus of claim 19, wherein the cluster-private data structure is
2 resident on the same node as the user job.

1 21. The apparatus of claim 20, wherein the cluster-private data structure is
2 accessible only from the node upon which the cluster-private data structure is resident.

1 22. The apparatus of claim 15, further comprising a group address data
2 structure configured to store a plurality of network addresses associated with the
3 cluster-private group name, wherein the program is configured to initiate the group
4 operation by accessing the group address data structure to retrieve the plurality of
5 network addresses and sending a message to each of the plurality of network
6 addresses.

1 23. The apparatus of claim 22, wherein the program comprises a clustering
2 infrastructure, and wherein the group address data structure is local to the clustering
3 infrastructure.

1 24. The method of claim 15, wherein the program is further configured to
2 process the access request by locally resolving on the first node a mapping between
3 the cluster-private group name and a plurality of addresses associated with at least the
4 subset of the plurality of nodes.

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1 25. A clustered computer system, comprising:

2 (a) a plurality of nodes coupled to one another over a network;

3 (b) a group including a plurality of members resident respectively on
4 the plurality of nodes; and

5 (c) a program resident in a first node among the plurality of nodes and
6 configured to access the group by receiving an access request that identifies a
7 cluster-private group name associated with the group, and processing the
8 access request to initiate a group operation on at least a subset of the plurality
9 of nodes that map to the cluster-private group name.

2025 RELEASE UNDER E.O. 14176

